


2019.11.16
#OTTHA19

Getting Data Analytics Right for Minor Hockey

CHRYSTIA CHUDCZAK
CHIEF DESIGN OFFICER
University of Ottawa

ONE-TIMER



Problem

What I Did

What I Heard

What I Believe

Next



TALKING POINTS

THE PROBLEM:
A DATA
ANALYTICS
TSUNAMI IS
BEARING DOWN
ON MINOR
HOCKEY. SOME
SEE IT. **NO ONE**
UNDERSTANDS
WHAT IT MEANS.

ANALYTICS TSUNAMI



"Who is
protecting
the child in
this
system?"

MANAGER,
COMPETITIVE TEAM



DESIGN PROBLEM

Design thinking solves problems using empathy & creative tools. It involves engaging an ecosystem of people living the problem to fix it.

MINI-ETHNOGRAPHIC PROJECT

Ecosystem immersion to ask questions, listen & observe while capturing qualitative insights.

OUTREACH

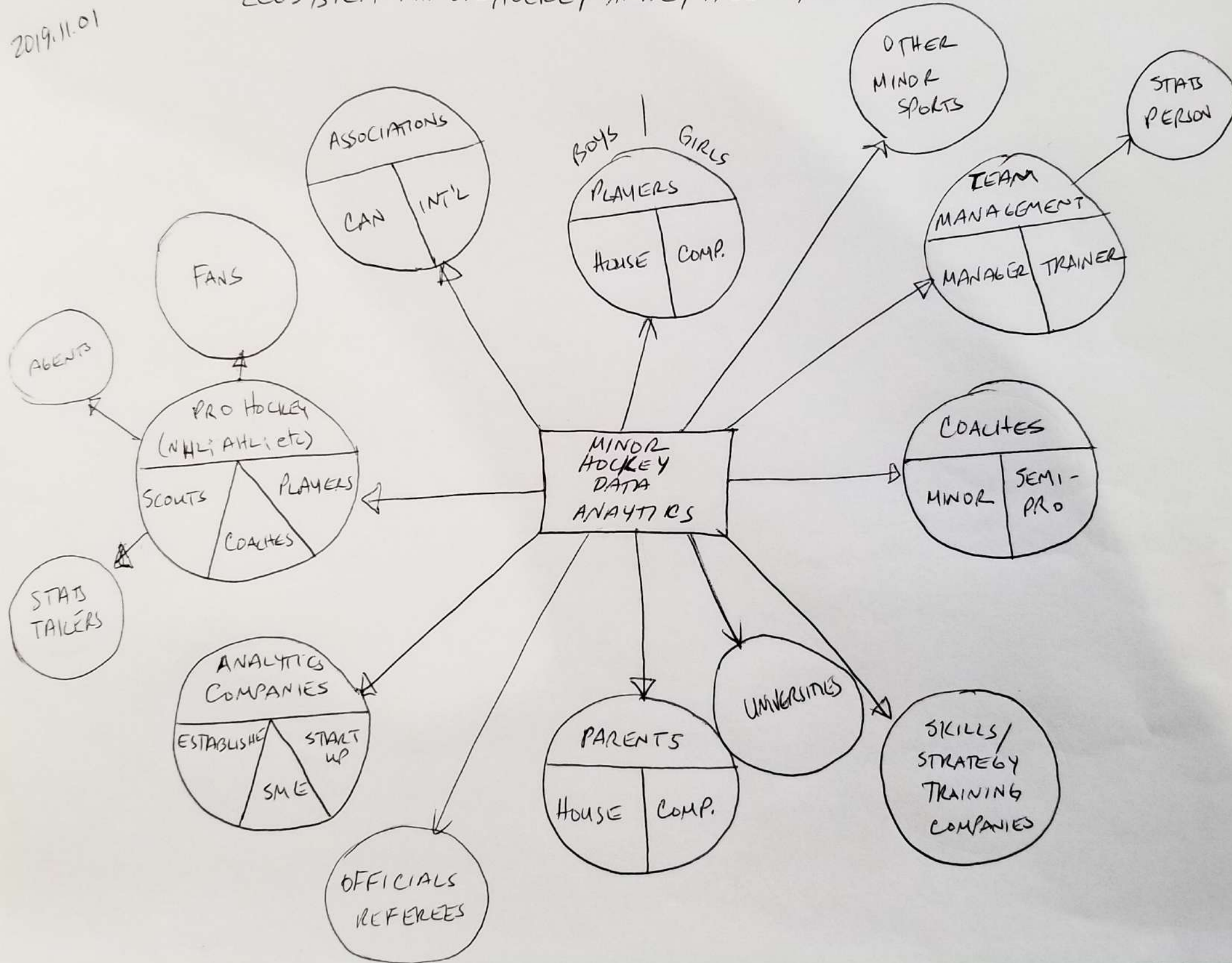
Use social media, personal networks, referrals & cold calls to find people to interview .



WHAT I DID

2019.11.01

ECOSYSTEM-MINOR HOCKEY ANALYTICS - INTERVIEW MAP



ECOSYSTEM

RESULTS

50 HOURS OF INTERVIEWS
300+ PAGES OF NOTES
HUNDREDS OF INSIGHTS
CONFIDENTIAL

64


sent interview requests

38

completed interviews

20

business days



**"Will it be
less fun for
the kids who
love to feel
the wind in
their hair?"**

**PARENT, COMPETITIVE TEAM &
FORMER ELITE PLAYER**

WHAT I HEARD



1 BOBBY ORR
Boston Bruins



2 PHIL ESPOSITO
Boston Bruins



3 JEAN RATELLE
New York Rangers

NHL ASSISTS LEADERS

NHL 1971/2

14 threads

3 THEMES

1. GAME:

USE | ACCESS | IMPLEMENTATION | SENSORS |
DEVELOPMENT | GENDER

2. FRAMEWORK:

FINANCES | SAFETY | GUIDELINES | ETHICS
& LEGAL

3. BUSINESS:

INDUSTRY | INNOVATION | CULTURE |
GROWTH



**"ANALYTICS ARE
A CONFIDENCE
BURST OR BUST."**

NCAA PLAYER

**"DON'T USE IN
HOUSE LEAGUE.
IT TAKES
CREATIVITY OUT
OF THE GAME".**

PARENT, COMPETITIVE TEAM



FORMER ELITE PLAYER & PARENT,
COMPETITIVE PLAYER

**"ANALYTICS WILL CREATE A SUB-CULTURE
THAT IS WORSE THAN TODAY - FOSTERING
MANY MORE BACK DOOR & UNDER THE
TABLE DEALS."**

1 GAME

USE | ACCESS |
IMPLEMENTATION | SENSORS
| DEVELOPMENT | GENDER



CONTEXT MISSING

No decision-making context, heavy subjectivity & strong bias in collection analysis, while questioning accuracy & credibility in current systems (eg. Pointstreak; Iceberg).

TRANSPARENCY DEBATE

Mixed views on revealing 'full' performance on ice at House/Competitive levels.

DEVELOPMENT INTEGRATION

Not clear how analytics integrate into 'development' program, or "fair/equal" play.

**"We don't need facial
recognition files
stored on a **Russian**
server."**

MANAGER, COMPETITIVE TEAM

"WE SPEND **MORE** TO SPEND MORE."

PARENT COACH,
COMPETITIVE TEAM





**"GUIDANCE WON'T COME UNTIL A NEGATIVE
EVENT happens IN ORDER TO MAKE REAL
CHANGE."**

AHL COACH



2

FRAMEWORK

FINANCE | SAFETY | GUIDELINES |
ETHICS & LEGAL

COST PAIN POINT


Too expensive with no demonstrated business value to team, players & families.

DATA ETHICS DEBACLE

Serious concern on data collection, ownership, storage & sale of minor player information.

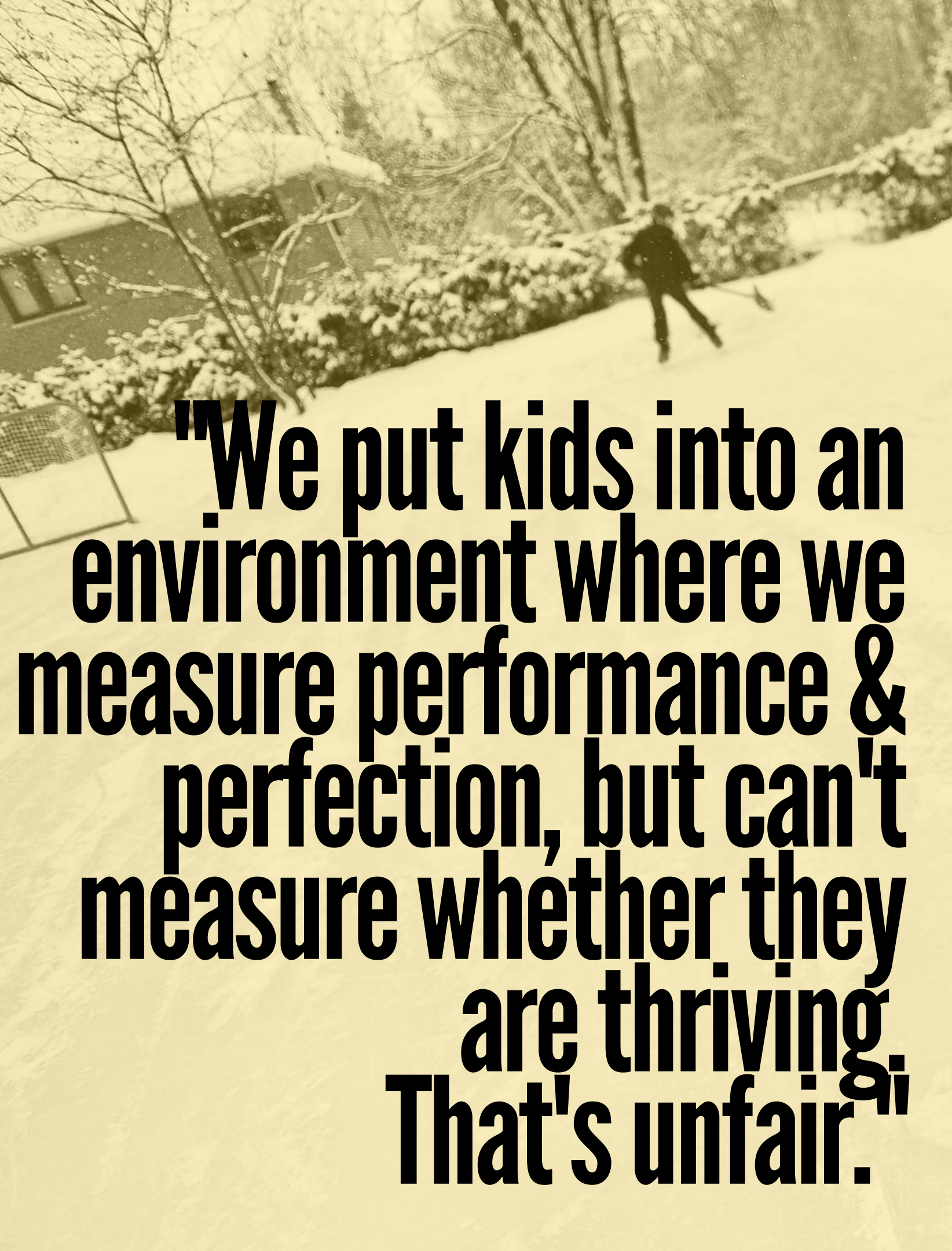
GUIDANCE & TRAINING

Want simple, clear & credible guidelines & training for use as coaches, parents & players, without added cost, or volunteer time..



"COMPANIES PROVIDE HORSE SHIT DATA.
IT'S **HOCUS POCUS** & VOO-DOO LIKE...".

Stats Inventor Parent, Competitive Team



"We put kids into an environment where we measure performance & perfection, but can't measure whether they are thriving. That's unfair."



Canadian Olympian

**"HOCKEY IQ MIGHT DECREASE
& PRODUCE LESS OF AN
ATHLETE WHEN SOMEONE ELSE
IS THINKING FOR YOU."**

FORMER NCAA PLAYER, COACH, WOMEN'S COMPETITIVE

**"YOU DON'T
NEED IT TO
PLAY HOCKEY."**

Player, Competitive, 12 years old





3

BUSINESS

INDUSTRY | INNOVATION |
GROWTH | CULTURE

HOCKEY ANALYTICS **STARTUPS**

Weak analytics service offerings, unclear data governance/collections processes & policies, will create new categories of businesses (eg. analytics coach).

IN-HOUSE INNOVATION

Strong culture of basic in-house stats collection by coaches & stats parents (e.g. circuit board system). But can paper + 'eye-test' home-made systems deal with tech influx?

MENTAL HEALTH CULTURE

Concern about the pressure of more, untested & misunderstood data analytics put on players.



WHAT I BELIEVE

Hommage au Montréal de Michel Tardif
Mural réalisé par André Massé
Assisté de Stéphane Perron, Pierre Bouchard,
William Gauthier, Pascal Fournier, Antoine
Carreau, Lucie et Jean.
PRODUIT PAR MU, 2012
PARTENAIRES:
Municipalité de Montréal
Ville de Montréal
Prévost & Woodbury
Fédération québécoise de la Santé du Québec
Fédération Québécoise de Hockey



**"WE NEED TO INVOLVE ATHLETES IN
THEIR **OWN** DEVELOPMENT."**

FORMER ELITE ATHLETE, PARENT, COMPETITIVE

REIMAGINE MINOR HOCKEY EXPERIENCE

Minor hockey needs to create a joyful player experience for the child/youth along its lifecycle.

UNDERSTAND IMPACT OF DISRUPTIVE TECHNOLOGY

Minor hockey lags behind understanding the impact of disruptive technology (e.g, data analytics, artificial intelligence, virtual reality) on their game.

DEVELOP & EXECUTE GUIDELINES

Minor hockey needs to figure out how help coaches, players & parents navigate big data/analytics/evidence-based decision-making.

ACTIONS

NEXT

**\$25M (US)
NHL DISRUPTIVE TECHNOLOGIES
IMPACT FUND FOR MINOR
HOCKEY**

**\$20M (CDN)
SSHRC/NSERC/CIHR PROGRAM
FOR INTERDISCIPLINARY
RESEARCH INTO THE IMPACT OF
DISRUPTIVE TECHNOLOGIES**

**\$5M (CDN)
HOCKEY CANADA DISRUPTIVE
TECHNOLOGIES LEARNER
PROGRAM**



CONTACT

TWITTER

@ChrystiaC

EMAIL

chrystiac@chrystiachudczak.com

CELL

6.13.296.1698